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## FOREIGN EXPANSION OF ACADEMIC SPINOFFS. A POLISH PERSPECTIVE

**ABSTRACT** The internationalization of academic spin-offs in Poland is crucial for their long-term success. Creating a support ecosystem that promotes and facilitates international expansion from the beginning is necessary to enhance global

thinking. With appropriate educational, financial, and advisory programs, Polish spinoffs will be able to compete more effectively in the global market and contribute to the growth of innovation and competitiveness of the Polish economy.



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## INTRODUCTION

Transforming knowledge into a business idea and ultimately into an innovative enterprise requires researchers to have managerial skills, capital, and university support in creating academic spin-offs. Academic spinoffs enjoy the increasing attention of policymakers in recent years. They are attracting considerable attention because of their potential to (a) enhance local economic development, (b) assist universities in their primary mission of teaching and research and (c) generate high-performance firms<sup>1</sup>. However, this attractiveness

must be linked to their openness to international markets, which will allow them to develop faster, provide an impetus for the development of new products and services, and ultimately bring significant benefits to Poland's competitiveness on the international arena. This impact is limited, as the internationalization of spinoffs in Poland is not yet a common phenomenon. The key to accelerating this process will be continuous support from government institutions, universities, and the private sector and the building of a global market-oriented entrepreneurial culture among Polish researchers and students.

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<sup>1</sup> *Academic entrepreneurship: University spinoffs and wealth creation. Cheltenham, UK: Edward Elgar (Shane, 2004)*



## UNIVERSITY SPIN-OFFS (USOS)/ ACADEMIC SPIN-OFFS (ASOS)

Before discussing international expansion, let's define university spin-offs (USOs) or academic spin-offs (ASOs). These are companies established to commercialize research results

and technologies developed in an academic institution. It is usually created by researchers, doctoral students, or students who want to bring innovative solutions developed in their research to the market<sup>II</sup>. Researchers, as partners, share the profits. From the legal viewpoint, a spinoff is no different from an ordinary business enterprise. It typically operates in advanced technology sectors. University or special purpose vehicle may be a partner or stakeholder<sup>III</sup>. University spinoffs (USOs) represent one mechanism for commercializing knowledge.

## CHALLENGES OF INTERNATIONAL EXPANSION

The international expansion of academic spin-offs is a complex process that faces several challenges, which may vary depending on the national context. For example, Germany<sup>IV</sup> and the United Kingdom<sup>V</sup>, which have well-developed spinoff support ecosystems, still face challenges in adapting to local markets and cultures. In contrast, in the Netherlands<sup>VI</sup>, the large share of universities in spinoffs hinders their development. It deters investors, which requires a change in approach to shareholding structure and intellectual property. The histories of various foreign academic spinoff companies show that some internationalize quickly, while others experience a slower or more gradual process. Moreover, internationalization is a sporadic phenomenon for some companies, while for others, initial rapid growth is not sustained. The challenge is establishing and developing relationships with foreign partners and customers regardless cultural, linguistic, legal, and geographical barriers.

<sup>II</sup> Defining university spin-offs. Article in *New Technology Based Firms in the New Millennium* (Hogan,2010)

<sup>III</sup> <https://www.igi-global.com/dictionary/academic-spin-offs/51041>, access 07.07.2024

<sup>IV</sup> <https://www.businesslocationcenter.de/en/zukunftsorte-en/technology-park-berlin-humboldtthain/>, access 10.07.2024

<sup>V</sup> <https://www.gov.uk/government/publications/review-of-the-council-for-science-and-technology-impact-of-advice/a-review-of-the-council-for-science-and-technology>, access 10.07.2024

<sup>VI</sup> The Internationalization of University Spin-offs: A Review and Research Agenda <https://www.oecd.org/innovation/university-industry-collaboration-e9c1e648-en.htm>, access 10.07.2024



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## A POLISH PERSPECTIVE

Despite the difficulties observed in Poland, the international expansion of Polish academic spinoffs is gradually developing and gaining momentum. The decision to internationalize from the very beginning of the life cycle should encourage spinoffs to create their company's image through a website in a foreign language and an international domain, and to develop international cooperation in research and development. Moreover, internationalization is necessary for spin-off companies associated with significant research and development costs. A spinoff internationally oriented from the outset and constantly seeking new international opportunities has a greater chance of success. The technologies and solutions created by spinoffs often have global potential, going beyond the local market. However, it is crucial to consider cultural and regulatory differences from the beginning of creation, which will allow for better product preparation for entry into different markets. Additionally, operating in multiple markets will reduce the risk associated with

fluctuations in a single market. Spinoff founders often have international network connections due to academic ties abroad, and such contacts prove to be extremely useful for the first and subsequent entries into foreign markets. The increase in prestige is also crucial for this type of entities. Successful international expansion can increase the recognition of both the spinoff company and the university from which it originated. The global expansion strategies adopted by spinoffs can vary greatly. The company can export its products or services to foreign markets, it can license its technology to foreign companies, establish foreign subsidiaries that will operate in a given market, or finally, it can cooperate with foreign partners to conduct research and development or carry out joint projects.

## OVERCOMING THE CHALLENGES

The main challenges are a particular aversion to risk and an excessive focus on technological development. In addition, many spinoff founders lack experience doing business in foreign markets

and dealing with competition in global markets, where they have to compete with already established international ones. Overcoming the challenges of adapting products and services for international markets requires a strategic approach and a commitment to understanding the specific needs of each target market. Moreover also requires flexibility and determination on the part of the spin-off management teams. The challenges of securing the rights to innovative technologies on international markets are also significant. The percentage of international patents of Polish universities and research institutes is deficient - about 5% - which indicates a shallow level of global exposure, which limits the transfer and diffusion of innovations<sup>vii</sup>.

The problems do not concern the spinoffs and their founders; it is also worth paying attention to technology transfer centers and special purpose vehicles, which may not always be able to «discover» those scientific teams with the potential for internationalization. This means entities may be supported and financed without the appropriate international perspective to become a global company. The university and its structures responsible for the commercialization of the results

of intellectual property work must play an essential role in supporting the expansion of a foreign spinoff company, by providing assistance in the field of market research, raising capital and establishing contacts with foreign partners. Here, we can observe an increased awareness of the need for expansion. Polish universities and institutions supporting innovation are increasingly promoting global thinking among scientist-entrepreneurs. More and more universities and research institutions offer support programs for spinoffs that want to develop internationally. An attractive solution is the creation of specialized acceleration programs addressed to spinoffs planning international expansion, which enable them to verify their business, confront their beliefs with experienced practitioners, test solutions in a professional environment and gain contacts that may bear fruit in the future. However, we should focus on solutions with application potential, determine teams and look at the international perspective. There are also many initiatives available with the participation of experienced entrepreneurs operating in foreign markets, dedicated venture capital funds supporting the international expansion of spin-offs, and grants and subsidies, e.g. for participation in fairs or opening offices abroad.



Source: iStock.com/Andreas.

<sup>vii</sup> *Research Institutes in Poland as an Element of the National Innovation System—Complexity, Financing and Effectiveness (Jonek-Kowalska, 2021)*

## CONCLUSION

Foreign expansion is a crucial success factor for university spinoffs. While it comes with many challenges, many tools and resources are available to help companies overcome these barriers. It is important for spinoffs to carefully analyze their options and develop an overseas expansion strategy tailored to their specific needs. Consequently, this not only brings economic benefits but also contributes to promoting Polish science and innovation in the international arena. This trend will strengthen in the coming years, supporting the transformation of the Polish economy. There is no detailed data on the scale of internationalization of Polish spin-offs and its impact on the economy, which may constitute material for further research and analysis.

## REFERENCES

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Author:  
**Katarzyna Papież-Pawelczak**

